



2024/25 Equipment Control Protocols

Testing Method

Testing will be performed using Fourier Transform Infrared (FTIR) Spectroscopy under the supervision of a certified FIS Equipment Controller. [Detailed information about the Fluorine detection system can be found here.](#)

All testing will be performed post race or, in the case of Individual Sprint Finals, post completion of a heat in which the competitor is eliminated or after the final heat.

Scope

These protocols will apply to the following competitors. Testing will be performed on as many of these competitors as is practical. The number of skis that will be tested will not be announced in advance of the competition.

SuperTour And United States Cross Country Championship (USCCC) Competitions	
Individual Start	Seeded Group, Group B, & Group C (60 total)*
Mass Start	Seeded Group & 40 lowest ranked from Group R (60 total)* American Birkebeiner - All FIS Seeded Group Members
Mass Start - Junior Selection Race January 5th	A Flight Seeded Group (20 Total)
Individual Sprint Qualification	Seeded Group & 40 lowest ranked from Group R (60 total)*
Individual Sprint Finals	All open class competitors
Individual Sprint Finals -Junior Selection Race January 4th	All
Pursuit Start	First 60*
Team Sprint Qualification	All
Team Sprint Finals	All
Relay	All Official Teams

*This number can be reduced in the case of a smaller number of senior-aged competitors in SuperTour events.

Junior National Championship Competitions	
Individual Start	Random Selection from Each Age Group - No pre-race ski marking.
Mass Start	
Individual Sprint Qualification	
Individual Sprint Finals	

Testing Logistics

Before the Competition

Ski Marking

All skis used in competition must be marked with a sticker that shows 1) Bib number, 2) Name, 3) Team Affiliation. Stickers will be issued by the organizer. The location and method of ski mark sticker distribution will be announced in advance at Team Captain's meeting, ski mark stickers will routinely be collated via Team Affiliation and provided to bib distribution for the Team Captain to pick race morning. Ski mark stickers of the day should be placed immediately behind the binding and any past stickers should be removed. Skis will be checked in at the start to ensure that they are properly marked. There is **no required ski delivery time**, however the skis must arrive at the Ski Check In with enough additional time for the markings to be checked. Additional time should be allowed for Mass Start competitions. A coach or technician may check the skis in advance for a competitor. Competitors will not be allowed to start without proper ski marking.

Number of Skis Used in Competition

Competitors are limited to the use of one pair of skis in all competition formats, Individual Start, Mass Start, Pursuit, Relay, Team Sprint, Individual Sprint Qualification, & Individual Sprint Finals.

In the case of a Classic technique Individual Sprint Final competition when there is a forecast for challenging weather (heavy snow, rapidly changing temperatures), the jury may allow two pairs of skis to be checked in and each pair must be marked with the stickers issued by the organizer. This exception will be announced at the Team Captains Meeting.

Sharing Skis

It is possible for two competitors to share a single pair of skis between rounds of Individual Sprint Finals (Heats). In this case, both competitors must display their ski marking sticker on the shared pair of skis and inform the Check In Officials. The pair will be tested at the completion of both athlete's competitions. A positive test will result in a sanction for both athletes. Shared skis must go directly to the Ski Control Zone following the completion of a heat to facilitate use in multiple heats (see procedure below).

Athletes and coaches must be aware of the possibility that sharing a single pair of skis might create a situation in which one athlete will be unable to start (e.g the athletes advance in to the same heat or into heats that run back to back). Sharing a single pair of skis between sexes and in different age categories reduces this risk.

After the Competition

Individual Start/Sprint Qualification/ Mass Start/Team Sprint/Pursuit

Athletes will be checked as they exit the Finish. If they have been selected for testing, they will be instructed to place their skis in the Ski Control Zone. Competitors must ensure that their skis are properly marked when depositing them in the Control Zone. The Organizer will take the skis from the Ski Control Zone to the Testing Tent. Once testing is complete, the Organizer will move the tested skis to the Ski Pick Up Zone where they are available to be picked up by the athlete or coach.

Sprint Finals

At the completion of each heat, all skis will be placed in the Ski Control Zone. If the athlete advances to the next round, the organizer will move the skis to the Heat Pick Up Zone. In classic competitions, the skis may be taken from the Heat Pick Up Zone to be serviced in the Kick Wax Service Zone. If an athlete does not advance, the organizer will take the skis from the Ski Control Zone to the Testing Tent. Upon completion of the Final round, the organizer will take all of the skis from the Ski Control Zone to the Testing Tent. In each circumstance, once testing is complete, the organizer will move the skis to the Ski Pick Up Zone where they are available to be picked up by the athlete or coach.

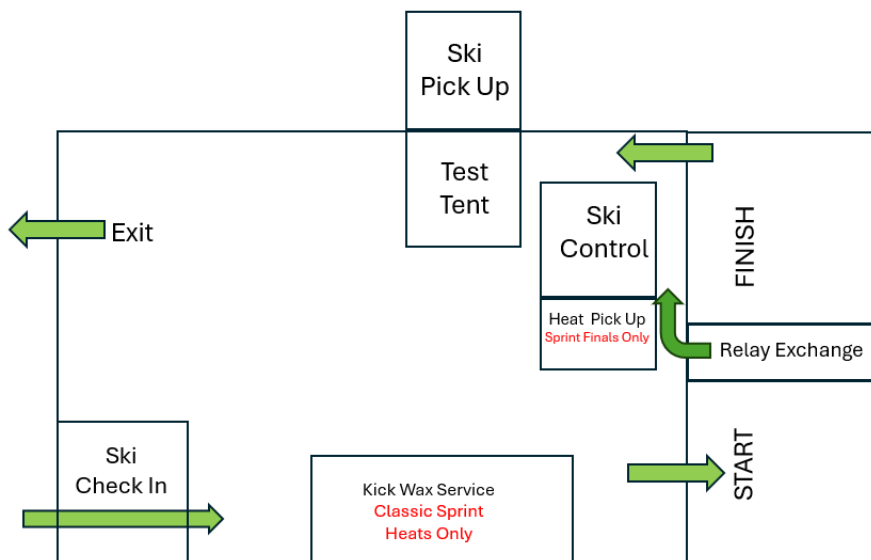
If the jury determines that two pairs of classic skis can be used for the Sprint Finals. The pair of skis that are not used during a heat must remain in the Kick Zone Service Area. All skis that are brought into the Kick Service Area are subject to testing.

Relay

In the case of Relays, athletes will be checked as they exit the exchange zone or the finish. If they have been selected for testing, they will be instructed to place their skis in the Ski Control Zone. The competitor must ensure that their skis are properly marked when depositing their ski in the Control Zone. The Organizer will take the skis from the Ski Control Zone to the Testing Tent. Once testing is complete, the Organizer will move the skis to the Ski Pick Up Zone where they are available to be picked up by the athlete or coach.

Control Area

The area immediately adjacent to the Start, Finish, and Relay Exchange must be separated into a Control Area in which only skis that are used in competition may enter. Warm up skis and test skis should not be brought into the control area.



Ski Exchange and Waxing

Only one pair of skis can be used for the entirety of a competition. Skis can not be exchanged between heats of the Individual Sprint Finals nor between legs of the Team Sprint Finals. Except in the case where the jury determines that two pairs of skis can be used in Classic Sprint Finals (see above).

Freestyle skis and the glide zones of Classic skis can not be waxed, brushed, cleaned or otherwise adjusted after a competition begins. This includes the period between heats of the Individual Sprint Finals and between legs of the Team Sprint Finals.

Kick wax may be adjusted between the rounds of Individual Sprint Finals. Kick adjustment can only be done within the designated kick wax service area within the Control Area and using only the prescribed materials and tools. The service area will be monitored and/or competitors will be subject to sanction for performing prohibited service on the skis (see above) or bringing prohibited tools or materials into the Service Area (see below).

Allowed tools and materials:

- Tables
- Profiles
- Kick waxes, klisters, wax tapes.
- Corks
- Spatulas
- Scrapers
- Heat gun/torch
- Sandpaper
- Dry cleaning cloth

Not Allowed:

- Any solvents, liquids, pastes, wipes, and other such materials that can be used to clean or improve the glide of a ski, including wax removers and base cleaners.
- ANY form of Glide waxes including paraffin, block, liquid, etc
- ANY Glide waxing tools including but not limited to, brushes, roto and hand fleeces, and roto corks.

General Rules

During a competition, the following rules apply.

Broken skis may be exchanged per ICR Article 343.8.1.

Kick wax can be applied per ICR Article 343.12.7

Measuring Procedure

Equipment Controller

The FIS will designate an Equipment Controller for each event. They are responsible for the oversight and operation of the Control Area and Testing. And, along with the Competition Jury, the selection of athletes to be tested. They report directly to the Competition Jury.

Competition Jury

Receives the information from the Equipment Controller and makes the final decision about sanctions.

Check In

Two persons who are responsible for checking that skis are properly marked upon entering the Control Area.

Finish Control

Two to Four persons are necessary to direct athletes who have been selected for testing to deposit their skis in the Ski Control, ensure that the skis are marked, and placed in the correct location, and transfer skis to the Heat Pick Up Zone (Individual Sprint Finals Only).

Kick Wax Service Control

Two persons to monitor the kick wax service zone. All prohibited activities, tools, and materials are to be reported to the Equipment Controller.

Testing Station

One testing operator and one assistant perform the primary testing of the selected skis. One or Two ski runners are necessary to move skis between the Ski Control, Testing Tent, and Ski Pick Up.

Red Ski

Skis will be tested according to the protocols defined by FIS. A minimum of three measurements are taken per ski. If one or more measurements on the initial test indicate that Fluor is detected, the ski will be measured again by the Equipment Controller. If the second test shows two or more detections of Fluor, the ski will be determined to be "Red", in violation of ICR Article 222.8.

In the case of the detection of a Red ski, the athlete and one coach have the right to review the results of the test with the Equipment Controller and the result will be included as part of the Technical Delegate's Report.